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TOWARD AN INSTRUCTIONAL MODEL FOR COUNSELING.

BY- SORENSON, GARTH
CALIFORNIA UNIV., LOS ANGELES

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DESCRIPTORS- *COUNSELING EFFECTIVENESS, *COUNSELING GOALS, *BEHAVIOR THEORIES, *DECISION MAKING SKILLS, PROGRAMED INSTRUCTION, DISCOVERY LEARNING, PROBLEM SOLVING,

THE AUTHOR BELIEVES THAT BY BORROWING IDEAS AND PROCEDURES FROM CONTEMPORARY MOVEMENTS IN EDUCATION AND PSYCHOLOGY INCLUDING--DEFINITION OF EDUCATIONAL GOALS IN BEHAVIORAL TERMS, PROGRAMMED INSTRUCTION, DISCOVERY LEARNING, AND COGNITIVE PSYCHOLOGY THEORIES, A USABLE COUNSELING MODEL CAN BE CONSTRUCTED. RELEVANT ETHICAL ASSUMPTIONS, INCLUDING THE GOAL AND ROLE OF THE COUNSELOR AND THE NEED FOR EMPIRICAL TESTING OF COUNSELING PROCEDURES, ARE REVIEWED. TERMS SUCH AS (1) THE COGNITIVE PROCESSES, (2) PROBLEMS, (3) SOLUTION, (4) PROBLEM SOLVING SKILLS, AND (5) THE TEACHING OF PROBLEM SOLVING SKILLS ARE DEFINED. ATTENTION IS DRAWN TO SOME PROPOSITIONS ABOUT HUMAN MOTIVATION. TWO MODES OF CONTROL, COGNITIVE AND REWARD AND PUNISHMENT, ARE REVIEWED. (PS)

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Garth Sorenson

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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University of California, Los Angeles, April 1967

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The CENTER FOR THE STUDY OF EVALUATION OF INSTRUCTIONAL PROGRAMS is engaged in research that will yield new ideas and new tools capable of analyzing and evaluating instruction. Staff members are creating new ways to evaluate content of curricula, methods of teaching and the multiple effects of both on students. The CENTER is unique because of its access to Southern California's elementary, secondary and higher schools of diverse socio-economic levels and cultural backgrounds. Three major aspects of the program are

Instructional Variables - Research in this area will be concerned with identifying and evaluating the effects of instructional variables, and with the development of conceptual models, learning theory and theory of instruction. The research involves the experimental study of the effects of differences in instruction as they may interact with individual differences among students.

Contextual Variables - Research in this area will be concerned with measuring and evaluating differences in community and school environments and the interactions of both with instructional programs. It will also involve evaluating variations in student and teacher characteristics and administrative organization.

Criterion Measures - Research in this field is concerned with creating a new conceptualization of evaluation of instruction and in developing new instruments to evaluate knowledge acquired in school by measuring observable changes in cognitive, affective and physiological behavior. It will also involve evaluating the cost-effectiveness of instructional programs.

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Toward an Instructional Model for Counseling

Garth Sorenson, UCLA

Preface

School counseling may be regarded as an activity in which the student spends his time (1) exploring his feelings and gaining "insights" about his "internal dynamics" or (2) learning "social adjustment"--mainly to do as he is told by his teachers, parents, and other adults in the community, or (3) learning skills which will enable him by intellectual means to solve problems other than the purely academic. My commitment is to the third alternative. I believe that it is proper for the counselor to teach intellectual skills which require sequential experiences to reach the necessary level of competence, and that these skills require a knowledge of concepts and principles drawn from behavioral sciences.

This point of view towards counseling is part of a trend which appears likely to become more generally accepted in the next five years. It is a trend away from depth psychology and existentialism and incorporates ideas drawn from transactionalism and behavioral psychology. My particular version borrows heavily from cognitive psychology, particularly from the ideas of Bruner and Gagné; it is to use a phrase provided by John McNeil, "more reflective than reflexive." Yet I believe that it is not enough for a coun-

selor to diagnose or understand a person--or even for the person to understand himself. The counselor must help the person to do something about his problems. "Helping him to do something" means teaching him ideas and ways of thinking that will enable him to manage his affairs more effectively, to make better use of his time--including the time he spends studying--and to get along better with his friends, parents, teachers, and the law. By "getting along with," I do not mean "going along with;" sometimes the counselee will have to learn to tolerate his predicament, but frequently he will be able to change it or cope with it in a new way.

To state such ambitious goals is not to imply that I am prepared to present a complete and fool-proof formula for achieving them, but a beginning has been made. During the year, some students and I have put together a set of empirical procedures for testing, correction and extending a theory, admittedly still crude and incomplete, which conceives of the counseling process as a kind of guided inquiry. Richard Hawkins, in particular, has been helping with the empirical tests. Some of the ideas which constitute the theory will be described in the working paper which follows. The research data will be presented in a separate document.

The ideas, procedures, and research findings which I lump together under the rubric of counseling will, if I am right, have two kinds of implications for educators in general; one practical, one theoretical.

1. This counseling model will provide educators with a guide to action. As teachers, counselors, or administrators, educators are continuously involved with children who are struggling with a variety of problems, not all of which have to do directly with school subjects. These are problems of course planning, of developing better study habits, of resolving interpersonal conflicts that interfere with schooling, and more. Too often school personnel fail to take full advantage of encounters with children that have to do with these kinds of problems. They give advice, exhort, or punish, but though the students may get some temporary help with an immediate problem, rarely do they acquire any new skills, new concepts or principles, or new coping strategies that they can use in the future.

It is my experience that a relatively small number of psychological principles can be applied in a wide variety of situations. The model identifies some of these principles. It suggests how they apply to the counseling role, and indicates how they can be taught to and applied by the youngsters themselves.

2. Obviously, the process of explicating and systematically examining the effects of model-prescribed counselor behavior with different sorts of students and different sorts of problems will provide information by means of which the model itself can be refined. But hopefully research on this counseling model may also make some contribution to in-

structional theory and practice. Many of the ideas of which the model is built have been borrowed from theories of learning and instruction. If it is true that there are problem solving processes that transcend specific problem content, then it seems a reasonable notion that investigations of problem solving in other than a classroom setting may produce generalizations useful to classroom teachers as well as to the counselors.

.As to the reasons for including work on counseling as a part of the program of a research and development center devoted to the study of evaluation, I would submit the following:

1. Counseling is an integral part of American education. The federal government has been financing institutes for the training of school counselors. Decision makers in education such as Dr. Conant insist that we need more counselors instead of fewer. In short, counseling is an educational activity which absorbs a good deal of time, money and personnel. It needs continuous evaluation to see that these are used well. To that end the same conventions need to be applied as are applied in the appraisal of instructional procedures in the classroom.

2. We need to develop a more adequate set of criterion procedures which operationally define the counselors' goals. This is a matter first of making explicit a framework of values about the purposes of counseling, that is, about the

kinds of behavioral changes counselors should try to bring about in people. And second, of developing more precise observational procedures for determining when the changes have occurred.

3. We need to define more adequately the independent variables--more specifically, what the counselor does and when. In the present context this is a matter of making explicit (a) the categories of verbal and non-verbal behavior used by the counselor and (b) the rules or directions for when each should be used.

4. We need to define more adequately the differences among subjects, differences which we suspect will require different kinds of counseling. This is a matter of developing appraisal or diagnostic procedures for categorizing subjects with respect to problems, previous learnings, temperament, and other variables which the theory suggests must be important.

5. We need to develop and test hypotheses about relationships among the dependent, the independent, and the mediating variables.

The paper which follows describes the values framework, and some of the psychological principles to be used by counselors and taught to counselors.

Toward An Instructional Model for Counseling

Garth Sorenson, UCLA

Anyone who would practice teach, study, or research counseling and psychotherapy is confronted with ambiguity, confusion and paradox. There is not just one or a few psychotherapies, there are more like a hundred. (Rogers, 1961). The differences are not just between abstract theories of personality dynamics--though there is plenty of disagreement here--nor are they merely differences between experienced and inexperienced therapists as some have believed. There are serious disagreements over goals--what psychotherapists should be trying to accomplish--and over methods--the nature of the therapeutic experience. What is regarded as therapeutic by one expert may be seen as countertherapeutic by another. There is no common language. Such words as counseling, psychotherapy, mental health, psychological well-being, etc., have no common meaning. Moreover, there is even some doubt about the usefulness of psychotherapy. Some believe that no psychotherapy, whatever its form, ever did anybody any good. (Eysenck, 1961). There is no generally agreed upon way of evaluating psychotherapy. Some practitioners believe that empirical research is essential; others believe that empirical research is both unnecessary and impossible.

Nevertheless, there is a large and growing number of people who want psychotherapy and who are willing to pay for it. And there is a large and growing number of people who want to practice psychotherapy--psychiatrists, psychoanalysts, social workers, clinical psychologists, school counselors, among many others. Each practitioner is, no doubt, convinced of the worthiness of his goals and the efficacy of his methods. Each knows intuitively that his doctrines are true, and he perhaps believes that those of others are false.

How, then, is the newcomer--student or researcher--to choose among the alternative schools or orientations? One way, which this paper will try to explicate, requires three steps. As Allport (1960), Jahoda (1958) and others have made clear, any theory of counseling or psychotherapy which postulates a "normal" personality involves ethical as well as psychological principles, for whatever the goals of counselors or psychotherapists, whether explicit or implicit, these goals represent value judgments, human preferences and different schools of psychotherapy are committed to different ends. In choosing a school or theory of counseling then, the first step is to make explicit one's own values--preferences regarding the kind of persons with whom one wants to work and the kinds of changes he hopes to bring about in those persons.

The second step is to select from psychological theories and research findings, the principles and procedures which appear most likely to be useful in bringing about the desired changes. The third step is to correct and modify the principles and practices developed in step 2 as additional information becomes available. The additional information may be derived from "experience," that is, informal observations intuitively analyzed by the practitioner. Or it may come from research enterprises in which data are systematically gathered and analyzed in the process of testing hypotheses about counseling or psychotherapy.

It seems likely that most counselors and psychotherapists go through a similar process in selecting a theory for themselves, though perhaps not always in the deliberate, orderly manner outlined above. London (1964) has suggested, that psychotherapists, in thinking about their goals and procedures, tend to follow either a medical model, or an educational model. Those whose training and orientation make them see themselves as "doctors of the mind," so to speak, think of the disorders they treat as "mental illnesses" and their "patients" as "sick." For them, psychotherapy is a branch of medical practice that cures people from sickness. Psychotherapists trained in the direction of education are more likely to see themselves as "counselors" or "special educators." They think of the disorders they treat as problems rather than illnesses. They see the subjects of

these problems as "clients" or "counselees" rather than patients. In short, these therapists are teachers.

Yet neither the medical nor the educational model is accurate. Neither model describes what most counselors and psychotherapists actually do, for as London and others have pointed out, psychotherapists are not really doctors because their subjects are really not sick. Physicians diagnose trouble in terms of specific and limited anatomical and psychological properties of the body and they treat these troubles primarily by chemical or physical means. Whatever the nature of psychotherapeutic diagnosis and treatment, it is not medical in this sense. On the other hand, psychotherapists are no more like teachers than doctors. Traditionally, teachers transmit informational subject matter to reduce ignorance. Psychotherapy, however, deals primarily with behavior patterns rather than with information, and sometimes more with eliminating or changing already established patterns than with establishing new ones.

London believes that psychotherapy resembles education more than medicine, but that the recipients are, to begin with, troubled and disordered while those of education, for the most part, are "empty and perhaps hungry but not in pain." He goes on to suggest that to satisfy an educational model psychotherapy would have to specify the "contents" being taught, to develop a technique for "teaching" those contents, and to develop tests to determine when and how well the

content has been measured. London observes that such concreteness may be impossible to achieve for psychotherapists, for lack of standard contents, lack of agreed upon methods for "teaching" them, and lack of generally acceptable instruments for measuring the effectiveness of therapeutic procedures. "If the job of the teacher seems complex, that of therapist seems abstruse." He quotes Victor Raymi's summary "...of a wry statement by a participant at a conference on the training of clinical psychologists: psychotherapy is an undefined technique applied to unspecified cases with unpredictable results. For this technique, rigorous training is required."

It is my position that to reduce the abstruseness described above, school counselors need a fully developed instructional model and that the limitations attributed to the model by London can and must be remedied. Furthermore, I would argue that by borrowing ideas and procedures from contemporary movements in education and psychology, it is feasible to construct a usable model that includes both ethical and psychological propositions. The remainder of this paper will be devoted to some of those propositions.

Some Ethical Assumptions

The goals of the school counselor are usually more limited than those of psychotherapists in general. Whereas psychotherapists generally may attempt to deal with

such disorders as schizophrenia, enuresis, sexual frigidity, and drug addiction, there are a number of reasons why school counselors will limit their attention to the problems of living commonly experienced by relatively normal people and will not try to treat the more extreme deviate.

One reason has to do with the amount and kind of training school counselors usually receive. However, a more basic reason has to do with the fact that the school counselor is a public employee and a part of an educational enterprise. As a public employee, he is not free to attempt to impose his own concepts of morality without at least taking into account the wishes of his employers, i.e., the public. As a member of an intellectual profession he is obligated to be informed about the views of thoughtful and knowledgable persons in that profession about issues which he encounters in his professional capacity. And, as a member of an educational institution, he is obligated to contribute to the over all effectiveness of that institution.

The proper goal of public education in this country, as it has been stated by Paul Woodring (1957) and others, is to enable other individuals to make wise decisions--ethical, political, and esthetic decisions--within the home and on the job, for our educational system has been designed to serve the needs of a free society, and in a free society all persons, except for infants and those in custodial institutions, must make their own decisions. When they are

not permitted to decide, when their lives are planned for them, the society is no longer free, no matter how benevolent the controls.

Since the essence of freedom is choice, the person who has more alternatives available to him is more free than the person who has fewer situations for choice. And so freedom does not merely depend on the lack of external constraints; more importantly, it requires the absence of internal constraints. Freedom requires knowledge, imagination and self-confidence, and the person who possesses these traits in greater degree has more choices available to him than one who is ignorant and lacking in imagination and self-confidence.

The notion of accurate prediction is implicit in the concept of the wise choice. When anyone makes a decision he predicts, at least implicitly, that the alternative he chooses will have desirable consequences. When someone decides to go to a movie, he predicts that at least the immediate and short-range consequence of his choice will be more satisfying to him than the other alternatives available to him. With other kinds of choices, e.g., buying an insurance policy, at least some of the desirable consequences are not expected to accrue until some time in the future. But there is still the implicit prediction that desirable consequences will result from the decision.

An additional point to be kept in mind--perhaps it is obvious to most--is that the only way to determine whether a

decision is wise is by examining one of its consequences and the subsequent effect upon some person or persons. A decision may be said to be wise when the results reveal that the individual has correctly anticipated its consequences for him and for others.

The consequences of a decision can be defined in terms of two kinds of events, external and internal. The external events are public--potentially observable by two or more persons--and involve the activities of people and the products of those activities. Internal events are private--observable only by the person who experiences them--and take the form of satisfaction or dissatisfaction.

If the purpose of the public school is to teach students to make wise decisions, i.e., to predict accurately both internal and external events, the domain of the counselor or at least of the counseling service in contrast with that of the traditional teacher becomes more obvious. Traditionally, a teacher imparts information about that part of the external world which relates to his discipline. And, properly taught, the concepts of any particular discipline will enable the student to understand the relationship of events to one another in the realm of that discipline. However, teachers generally have not attempted to assist the child to deal with his world of internal events in any direct systematic and sustained manner. While it is true that teachers of such subjects as history, literature, and philosophy con-

tribute to the child's self-understanding to the extent that they make him aware of what he shares with other members of the society, rarely has any attempt been made by teachers to help the individual pupil know what makes him unique--his particular motivations, needs, fears, anxieties, pleasures, guilts, values, vocational and avocational interests. Rarely do teachers deliberately attempt to teach the individual student how to make sound decisions as he faces important choice points in his education and in his personal life. There is a gap in the educational process, and it is that gap which counselors have tended to fill. For the most part, however, we have not gone about it very systematically.

It is not the counselor's job to decide for a student which choice he should make. Instead, it is the counselor's task to teach him how to estimate the probable consequences of alternative courses of action so that he can take these probabilities into account in his educational and vocational planning, in coping with interpersonal conflicts with parents or teachers, and in dealing with upsetting events which interfere with his educational progress.

To recapitulate the assumptions concerning the counselor's role, the counselor works in an educational setting with pupils, school personnel, and sometimes with parents. He works with relatively normal subjects and ordinarily is not expected to deal with extreme deviates, however that term

is defined. Both his goals and his methods are intellectual in the sense that they have to do with teaching students problem solving skills--how to gather and analyze information in order to make predictions about the outcomes of alternative courses of action in problem situations. Both his goals and his methods can and should be described in behavioral terms. When the counselor has been successful, his subjects will act in ways that are different from the ways they behaved before counseling began. For example, students will improve their ways of coping with their parents, or teachers, or peers, or there will be observable differences in their study habits or in the way they use their time. Furthermore, when the counselor has been successful, his subjects will report that their feelings about themselves and about the world have changed in a positive direction, that they are more self-approving and optimistic.

There is no implication in the position described in this paper that the counselee will be changed in ways that he would not choose. To repeat, the counselor's goal is to increase the number of alternative courses of action available to the counselee, not to limit them; the goal is also to enable the student to cope with the pressures he experiences in every day living rather than to add new pressures. The only coercive processes the counselor should use are the processes of knowledge and reason.

This position is by no means endorsed by all counselors and counselor educators. Many who practice or write about counseling scoff at rational approaches. To them the words "intellectual," and "prescriptive" are pejoratives. Such writers as Arbuckle (1961) and Patterson (1962) emphasize the view that counseling "is not a bundle of techniques" but rather an "accepting relationship" in which the client is enabled to express himself freely. Tyler (1961) views counseling as a helping process, not aimed at changing the person but enabling him to use the resources he already has for coping with life. The present position is somewhat closer to that of Berdie (1958) who would have the counselors help counselees solve immediate problems in the expectation that the individual, the student, would then be able to continue his normal course of development.

There is one other ethical assumption which should be mentioned at this point having to do with the need for the empirical testing of counseling procedures. As Ford and Urban (1963) have observed, many who write about psychotherapy have a good deal to say about the dynamics of personality, but they have very little to say about what the therapist actually does. Some psychologists are beginning to raise the question of whether it is ethical to use untested methods. Until alternative modes of counseling can be operationally defined, empirically tested, and accurately taught, counseling will remain an abstruse lore in which one man's opinion, trained

or untrained, is as good as the next. This state of affairs is not to be tolerated.

Some Psychological Propositions

If there is anything unique about the counseling methodology described below, it is probably the general proposition that the counselor can best help his subjects by teaching them to use the same psychological principles which the counselor himself uses. The particular movements from which these ideas are to be drawn include (1) the increasing tendency to define educational goals in behavioral terms; (2) the use of programmed instruction; (3) the use of "discovery" methods in teaching; (4) developments in cognitive psychology.

The most useful principles, it is tentatively assumed, can be found in the work of the cognitive psychologists on the intellectual processes--perception, thinking, and problem solving. This section is devoted to a definition of such terms as (a) the cognitive processes, (b) problems, (c) solution, (d) problem solving skills, and (e) the teaching of problem solving skills.

Cognitive processes

A person's ability to cope with the events in his life is dependent in a large part on his efficiency as a data processing system and on his skill in communicating his views

and intentions to other people. As long as he lives, each person continuously takes into his central nervous system various kinds and amounts of information about the outside world and about his own body, and he responds systematically to that information in a variety of ways. How long and in what manner a person survives is determined, to a great degree, by his ability to make multiple discriminations, to notice crucial details in his environment and to interpret them correctly. He must learn to use his eyes, ears, and other sense organs to distinguish differences among a fantastic number of objects and events in his environment. He must learn concepts, that is learn to respond to classes of objects and events. He must learn principles, propositions that state the relationships among these classes, because principles are predictive and tell him what leads to what in his world. He must learn to give himself directions consistent with his observations and with the principles which he uses to interpret those observations. These directions are in the nature of rules which serve as guides to his own behavior. Sometimes he must communicate to others, make them understand how things appear to him.

To illustrate the point, a person driving a car down the street uses his eyes and ears to take in information about other cars, pedestrians, traffic signals, children, dogs, chuck-holes, policemen, objects in the road, etc. He discriminates between red lights and green lights and between traffic signals

and neon signs. He assumes that each particular class of events has a single meaning, e.g., that when the driver of the car ahead extends his arm straight out, the car will probably turn left at the next intersection. He gives himself instructions, more or less consciously reminding himself to signal before changing lanes, to keep an appropriate distance from the car ahead, to drive within the posted speed limits, etc. He communicates, using his hands, horn, or lights to tell others what he intends to do.

The cognitive processes required for all of these activities are processes of the central nervous system. They are covert---they cannot be observed directly---but must be inferred from overt behavior. They are learned and can be modified by further learning. They are largely unconscious in that the individual is usually unable to observe and to verbalize most of his mental processes, although he can learn to attend to and report certain important aspects of his own behavior.

Problems

A problem may be said to exist when someone is motivated toward a goal and sees no way of attaining that goal (Johnson, 1955). He may not be able to attain his goal for a variety of reasons: because of failure to make the needed observations; failure to use the appropriate concepts and principles, failure to "give himself" proper instructions in controlling his own

behavior; or failure to communicate effectively with other people. Inability to do something one wants to do results in a feeling of discomfort or discontent, which may range in intensity from mild frustration to fear, anger, or severe depression. The seriousness or severity of the problem is determined by the amount of discomfort that the person experiences.

That is not to say that every person who comes for counseling comes with a particular goal in mind. People seek counseling because they feel troubled or discontented. The only immediate purpose of some counselees is to reduce their discontent. They may be unaware of, i.e., unable to verbalize, the causes of their unhappiness. They may be unaware of the alternative conditions that they would find more satisfying. Others are clear about what they want to do, but unclear about the nature of the obstacles that stand in their way.

Since no one can have a problem without being "motivated," it follows that problems are characteristic of persons, not of situations. When we say that a "problem situation" exists, we infer that some person who is in some way a part of the situation has a goal which he does not know how to attain. When a person knows how to attain his goal there is no problem. Especially in cases of interpersonal conflict, e.g., students who have been sent to the office by their teachers, married persons in conflict, etc.,

it is frequently useful for the counselor to ask himself, "Who has the problem? Who is uncomfortable? Who wants the situation changed, and how?"

Because problems are at least partially determined by motives, a situation which is a problem for one person may not be a problem for another, or the same situation may pose different problems for different people. Conflict may occur because two people have different goals with respect to the same situation. An example is provided by the case of the parent and child who are in conflict over the child's television watching. The parent's goal is to get the child to watch television less. The child's goal is to watch more. They have different goals, face different obstacles, have different problems. A teacher may say, "Jane has a problem; she doesn't want to learn her algebra." But applying the above definition of "problem," it would be correct to say that Jane's not wanting to learn algebra is the teacher's problem, not Jane's. Of course if Jane does not learn algebra now, she may, as a consequence of her ignorance, encounter problems in the future which would not arise if she knew algebra. But, while such a prediction seems reasonable, it is, nevertheless, a prediction about the future and not a description of the present situation.

It also follows that a person may have a problem because he has goals which appear to him to be mutually exclusive. Perhaps he has a choice of two jobs. One would pro-

vide work he would enjoy, but would pay less. The other would provide money he wants, but would require him to spend his time in ways he finds dull or otherwise unpleasant. He can't see how to achieve one goal, the interesting work, without giving up the other, the better pay. In such a conflict the resulting discomfort can be very severe.

Obstacles to problem solving can be, in one sense, external to the person with the problem. The girl a boy wants to marry marries soneone else. A student wants to become a doctor but is unable to get admitted to medical school. In another sense, the obstacles are internal, "within" the person and in some sense a part of him. A person with a problem is unable to achieve a goal because he lacks the needed cognitive skills or because he is in some sense cognitively "wrong."

Solutions

Usually a problem gets solved in one of two ways. Either the person learns to remove or get around the obstacle, or he finds a substitute goal. While it is occasionally true than an obstacle disappears without any particular effort on the part of the person who has the problem, most of the problems which counselees bring to counselors require some kind of action. The person with the problem must learn new knowledge and skills, the nature and complexity of which will be determined by the nature of the problem. Or he must

change his goals. For example, John's problem is how to get a date with Ann, who persists in refusing him. It is conceivable that he could improve his social skills, or in some other way learn to please Ann so that she would be willing to accept his invitations, and thus he would solve his problem. Or, if he suddenly were to become attracted to Carol, who wanted to "date" him he would no longer have a problem, at least about Ann. In either event, the "solution" would be valid only if John experienced a reduction in the discontent that brought him to the counselor in the first place.

Problem Solving Skills

The same kinds of cognitive processes which are required to drive a car through traffic are also needed for other kinds of coping behavior. Of course the content--the kind of information processed--will be different but a person must still make multiple discriminations, use concepts and principles, give himself instructions, and in many instances, communicate with other people. Since all of these terms have particular meanings, it would perhaps be useful to give a more precise definition of each one.

Sir Frederic Bartlett (1958) is one of the psychologists who describes thinking as a "skill" or a set of skills having to do with information processing. He defines thinking as, "An extension of data, in a manner consistent

with the data, in order to fill gaps in the data."

Gagné (1965) adds to our knowledge of these skills, defining problem solving as a set of events in which a person uses principles to solve a problem. In the process of using principles to get a solution, the learner discovers new higher order principles which enable him to solve similar problems with greater facility.

Miller, Galanter, and Pribram (1960) see much of the individual's ongoing behavior as being controlled by "plans." The individual presumably is quite aware of--able to verbalize--some of the plans that guide this behavior during a given period of time. He is presumably unaware of other plans, not necessarily because of guilt or repression or some other defense mechanism, but because of the nature of the human organism. As Whyte (1962) has observed, there is no need to be aware of one's self or one's thought processes unless something is going wrong. Miller, Galanter, and Pribram suggest that in problem solving, people use two different kinds of plans--two different kinds of rules. Algorithmic rules, an example of which would be a set of arithmetic procedures, always produce a solution to a problem when they can be properly applied. But there are many problems for which algorithmic rules haven't yet been invented or for which algorithmic rules may be too time consuming to be practical. For these problems, the second class of rules--heuristic rules--may be useful and may save a great deal of time even

though they do not always produce a solution and even though they involve intellectual processes of an intuitive nature that can't always be made explicit. "Try to control the center of the board," is an example of a heuristic rule used by chess players. "People tend to repeat behavior that gets rewarded," would be an example of a heuristic rule employed by at least some psychologists. It would appear that the heuristic rules referred to by Miller, Galanter, and Pribram are similar to Gagné's abstract principles for problem solving.

Combining the ideas presented above, it would seem useful to think of counselees as persons who need to be taught certain heuristic rules, or in other words, taught to apply certain abstract principles in solving their personal problems. The people with whom a counselor works are in trouble because they don't know the proper principles or because they habitually use principles that are incorrect and self-defeating. A teacher fails to see the relationship between his punitive methods of controlling the class and the dislike his students have for him and the subject he teaches. A parent who sternly follows the rule, "spare the rod and spoil the child," is surprised, upset and disappointed when the child either rebels or becomes overly dependent.

The heuristic rules the counselor teaches are abstract psychological principles derived from his knowledge of research, the teachings of other counselors, and from his own experience.

Teaching the Application of Psychological Principles

The process of teaching a person to apply a psychological principle to a person problem is somewhat complex and involves a good deal more than merely learning to verbalize the principle.

Obviously being able to verbalize an abstract principle is not sufficient. Gagné suggests that in order to be able to do more than "verbalize," we need to know some principles of task analysis. Applying his views, it follows that:

1. Any task, including the task of solving a problem, may be analyzed into component tasks. Each of the component tasks may have to be learned in a different way and may require a different kind of instructional procedure.

2. Before a student can be expected to perform a final task, i.e., to get a solution to the problem, he must have learned each of the component tasks.

3. The component tasks may be in hierarchical relationship to each other such that it may be necessary to learn some before others can be learned. For example, a student must learn to count before he can learn to add, to add before he can learn to multiply.

Gagné's way of thinking suggests that a counselor or a teacher who intends to teach problem solving must be able to (1) identify and describe the components of the final task; (2) develop instructional procedures which will enable the

student to learn each of the component tasks; and (3) order these instructional procedures into a proper sequence or hierarchy. In the present context, the counseling interview is regarded as a set of instructional procedures each of which must be defined. In other words, an efficient interview will proceed according to a pre-determined order and not rely on random conversation.

The task of solving a problem, personal or otherwise, may be seen as consisting of three component tasks, each of which may in turn consist of smaller components or sub-tasks. The three major components are: (1) identification of goals; (2) identification of obstacles; and (3) development of strategies for overcoming obstacles. Each of these components is discussed below.

1. The counselee must become clear about the nature of his own goals. Whereas in arithmetic the teacher decides the goals and tells the student what kind of "terminal performance" is expected of him, in counseling, the student is guided in an analysis of his own wants and preferences. The goal is that the student will become clear about the kind of terminal performance he is expecting of himself, or hoping for. This step can be both tedious and time consuming because of the student's lack of information about his own abilities and preferences. In helping a student to plan his course program, for example, the student must be guided through the process of examining both short and long range

goals, vocational and avocational preferences, desires for money, status, prestige, and the probable consequences of the alternative choices. It is to be expected that many counselees will not be able to make these decisions on the basis of information obtained by means of self-observation alone (Super, 1949). They will need information provided by interest inventories, achievement tests, and course records and, in some instances, work study programs. Furthermore, it must be kept in mind that goals change, even in the process of analysis. In consequence, goal clarification is not a step to be taken once and for all. It is an activity to be engaged in repeatedly throughout the individual's lifetime. One of the things he should learn in counseling is to analyze his needs and preferences on his own.

2. The counselee must analyze the nature of the obstacle, the circumstances, objects or events that keep him from achieving his goal. Duncker (1945) would say he needs to analyze the situation to locate the area of difficulty, ambiguity, or confusion. Sometimes the obstacle, the thing that keeps the counselee from achieving his goal, is his own fear or anxiety. Sometimes it is a self-defeating behavior pattern of which the person is unaware. A desperate parent, for example, who wants his child to love him, may be doing the very thing that drives the child away from home. Here again, self-observation may not provide the counselee with the information he needs to identify the obstacle. He just

isn't able to "see" the consequences of his own behavior, and so the counselor must direct him in the tricky and hazardous process of discovering his self-defeating behavior patterns so that he can do something about them. (Perhaps the counseling process, as I am describing it, sounds overly simple. It is far from simple, for, and this must always be remembered, a definition of an obstacle is never more than a tentative conclusion, arrived at by the counselee on the basis of insufficient data. It is, in short, no more than a hypothesis to be tested and discarded if it does not prove helpful in reaching a solution.)

3. The counselee must recall the "prerequisite principles" and from them generate several alternative plans of action for getting around the hypothesized obstacle. If he doesn't know the prerequisite principles, the counselor will need to instruct him. In the common language, the word "know" usually means to be able to verbalize or talk about. As the word is used here and as it is used by cognitive psychologists, it implies a good deal more.

To "know" a principle requires that the person be able to do more than repeat a sentence which states the principle. For example, a student might be able to verbalize such principles as "ontogeny recapitulates phylogeny," or "babies cry when hungry." This same student, however, may not understand the ideas behind the statement. To know a principle requires that the individual understand the concepts inherent in it.

"Knowing" a concept also requires that a person be able to do more than give a verbal definition. He must be able to identify any of the members of the class which it names--that is, he must be able to define a concept by pointing to proper examples of objects or events. Being able to identify members of a class requires, in turn, two particular kinds of learning. One must learn to discriminate---to make different responses to different members of a collection. One must also learn to respond in a single way to a collection as a class which extends beyond the particular members that were used as examples of the class. For example, a young child must learn to make different responses to the collection of objects in a room--toys, pets, furniture, vases--and other things--not to be touched, etc. Then he must be able to recognize in a strange house which things belong in the not-to-be-touched category.

Much of education is concerned with the learning of concepts. The student in school must learn to distinguish between solids, liquids, gases, parts of the earth, varieties of living things, symbols of mathematics and science, offices and functions of government, etc. He learns these as a part of his formal coursework in order to solve problems--attain goals--set by his teacher. In the counseling process, the student also learns concepts which he combines into principles in order to attain goals he sets for himself.

4. The counselee must consider each plan in terms of its probable consequences and its feasibility. He must then select one of the alternatives for trial. At this step, it may be necessary for the counselor to teach such principles as "actions sometimes have unexpected and unwanted consequences."

5. The counselee must actually try out the selected plan of action outside the interview, in the problem situation itself. If his plan doesn't produce the hoped-for results or if he is unable to carry it out, he must go back and repeat one or more of the problem-solving steps described above--assuming, of course, that he has not changed his goals in the meantime.

A point to emphasize here is that the solution of problems, whether they are school problems or personal problems, requires knowledge. Motivation and intelligence are frequently not enough.

EXAMPLE: Mrs. Jones, a first grade teacher, asked the counselor for suggestions about the following case. She said she was having great difficulty in controlling George, a six year old, who would get up and walk about the room when he was supposed to be sitting and taking part in a reading exercise. She said he was a gentle boy, quiet, and shy, seemingly a lonely youngster, the youngest of twelve children, somewhat neglected himself. Her way of controlling the other boys was to punish them by making them sit by her when

they were noisy or when they disobeyed. She said the little boys would laugh at anyone who was made to sit by the teacher. But she tried this punishment with George again and again and it just didn't work. What should she do? She didn't feel like using a more severe punishment because he was such a sweet child.

In their discussion, the counselor asked Mrs. Jones to try to apply two principles or hypotheses relating to human behavior. (1) Children are likely to repeat behavior that gets rewarded and (2) what is rewarding to one child may be punitive for another. There was some discussion of the meaning of the words "reward," and "punish" and "learn." After briefly mulling over the situation, Mrs. Jones stated a new hypothesis about the case which proved to be useful to her and which, she said, was so obvious she didn't know why she hadn't thought of it before: George liked sitting by her. Since she used sitting near her as a punishment for improper or undesirable behavior, Mrs. Jones realized that she had been rewarding the very behavior she wanted to change. In a follow-up interview, she reported that she had changed her own coping behavior. She had begun to use the "punishment" as an inducement and had told George he could sit by her any time he wanted as long as he was a good boy.

What heuristic rules did the counselor "give himself" in this case? It is my belief that the counselor helped Mrs. Jones by teaching her a new way of coping. The coun-

selor did not question Mrs. Jones' goal, nor try to get her to accept an alternative goal. He did not spend very much time exploring her feelings about the problem, although it seems plausible a feeling of discontent motivated her to ask the counselor for some suggestions and that she experienced a change of feeling as a result of counseling. He did not suggest a specific course of action. He did teach her some specific principles using a particular kind of instruction so that she was able to apply those principles to her problem and was able to invent a new strategy for coping with George. Presumably she learned to give herself new instructions, varying her own behavior to the end of changing George's behavior. Hopefully, she will be able to apply the same principles in developing strategies in coping with similar but somewhat different control problems in the future.

Some Propositions About Human Motivation

Two basic questions with respect to human motivation are, "Why does a person act the way he does?" and "What conditions are necessary and sufficient to get a person to act differently?"

It is not the purpose of this section to present either a theory of motivation or a catalogue of human motives, but, rather, to draw attention to some particular ideas about motivation, ideas which help to account for the kind of complex human behavior with which the counselor is concerned, e.g.,

the group loyalties of members of delinquent gangs, the cruelties of children to one another, the willingness of some children but not others to do school work, the weariness and irritability that children show when they are bored, etc.

Murphy (1954) has commented on the wide variety and the great plasticity of human needs and preferences, and on the fact that human motives invariably get shaped and modified by experience. He observes that a motive or drive may be defined in terms of physiology, in terms of its goals, or in terms of observable processes which are manifest in seeking such goals. Sometimes a motive can be defined in terms of all three. For example, hunger may be defined as "gastric tensions which result in food oriented behavior and food ingestion." Of particular relevance to the present enterprise is Murphy's emphasis on activity needs, sensory needs, and others, all of which he would locate in the central nervous system rather than in the viscera, and which he would see as being as "primary" or as "fundamental" as the need for food and water.

We Need to be Active

Human beings are, by nature, striving, seeking, purposive, active creatures. Some of our activities, such as walking, talking, eating, making love, listening to music, looking at paintings and sunsets, can be satisfying in them-

selves. Other activities, such as saving money instead of spending it, or working at a job one doesn't like, are instrumental--satisfying when they are seen as leading to long-range goals.

Many of these activities are not easily accounted for in terms of tension reduction theories. As has been observed by Murphy (1954), by Harlow (1953), by every parent, and by every child who has watched a kitten or puppy, all animals seem to enjoy some activities as ends in themselves. Young dogs, young cats, and young persons love to run, jump, play with balls, chase one another, wrestle, etc., just because these activities are intrinsically satisfying.

White (1959) argues that because such activities as looking, manipulating, attending and perceiving, using language in thinking and speaking, exploring novel objects and places cannot be successfully conceptualized in terms of primary drives or tension reduction, we should substitute the concept of competence motivation. After reviewing the evidence and summarizing the counter-arguments, he suggests that all these kinds of behavior have a common biological significance in that all form part of the process whereby animals or children learn to interact effectively with their environment. He refers to Woodworth (1958), who regards dealing with the environment as the most fundamental element in motivation, and then goes on to maintain that, at least in the human animal, these activities are related to a ten-

dency toward autonomy and self-determination.

This view of human motivation is consistent with a particular view of psychological well-being which has been described by Whyte (1962). As Whyte sees it, the essence of psychological well-being is "aesthetic participation," by which he means an absorption of the individual's attention and energies in ongoing activities or relationships. From his point of view, we become aware of ourselves only when something is going wrong and we are frustrated or blocked in our wishes or find we have erred in our calculations or expectations. Whyte believes that the biological function of self-awareness is apparently to catalyze processes which tend to remove its cause. "Consciousness is like a fever which, if not excessive, hastens curative processes and so tends to eliminate its source. The main purpose of conscious thought, its neobiologic function, may be first to identify, and then to eliminate, the factors which evoke it...Learn to know yourself by all means, when you feel it necessary, but then turn to something in which you can forget yourself."

We Need to Know - But We Can't Know the Same Things

Where man is concerned, some of the intrinsically pleasurable activities are cognitive in nature. Some of us like to read detective stories, to solve crossword puzzles, or problems in mathematics or chess. Of particular

importance is the matter of curiosity. All animals are naturally inquisitive and no doubt man is the most inquisitive of all. We need to know about our environment, not just so that we will be able to satisfy our needs for food or water or sex, but because sensory and cognitive processes are sometimes satisfying in themselves. The work on sensory deprivation (Solomon, et al, 1961) provides experimental evidence that a person who is deprived of stimulation soon becomes not only bored and uncomfortable, but actually begins to lose control of his mental processes.

The nature and direction of each individual's activities are largely determined by his perceptual habits, his beliefs, his plans in short, his construction of reality all of which are learned. Some of the crucial beliefs consist of descriptive and predictive propositions about the world outside. Other equally crucial beliefs consist of notions about ourselves. We learn propositions about what the world and ourselves are actually like, about what is possible and what is not possible. These beliefs help to make us either conforming or innovators. We also learn expectations about how the world and how we ought to be. These beliefs help to make us optimistic and full of zest, or pessimistic and full of guilt.

As Murphy (1947) and others have pointed out, people construe the universe in order to cope with it, and it is inevitable that there will be a great variety of alternative

constructions, for the universe is so complex that no one ever perceives or can be expected to perceive more than a few of the details of the objects and events around him. In order to cope with such complexity, each individual learns to respond to particular categories of objects and events, and remains unaware of all that he has not learned to see or feel or otherwise experience. To state this point differently, a person doesn't see or hear things because they are there but because he has learned to perceive them. As the biologist J. Z. Young (1960) has said, "...the brain of each one of us...literally create(s) his or her own world." Young refers to the reports of people who were born with certain rare forms of blindness, and who as a result of an operation received their sight. He reports that the patient who opens his eyes for the first time finds the experience painful. The patient discerns only a spinning mass of lights and color and is unable to pick out objects by sight, to recognize what they are, or to name them. He has no conception of space. His brain has not been trained in the rules of seeing--rules usually learned by the long years of exploration with the eyes during infancy and childhood. Young says that we have to learn from others how to see. "Contrary to what we might suppose, the eyes and brain do not simply record in a photographic manner the pictures that pass in front of us...we have to learn to see the world as we do."

That each person's reality is different in certain important respects from that of any other person, and that in any given situation two people will inevitably hear and see or otherwise sense different objects and events and attach somewhat different meanings to the same events can be illustrated by a variety of common place examples. The agriculturist viewing farm land will observe a number of objects and events the untrained person will miss--varieties of noxious plants, signs indicating that the soil needs more iron and less water, etc. The forest ranger will be alert to things not seen by the occasional visitor--varieties of trees, shrubs, grasses, sedges, wild flowers, mosses, signs and sound of wild animals and birds about. A dressmaker will see darts, gussets, scallops, differences in styles and materials not perceived by ordinary folk, or at least by ordinary men. The rock hound will observe minerals, fossils, geological formations unnoticed by most people. A trained listener will hear counterpoint, key modulations, shifts in beat as from 4/4 time to 5/4 time, and other phenomena untrained listeners will not hear. A woman will observe subtle but important changes in the mood of her husband or children, changes not observed by strangers. Teachers will observe signs of irritation, wandering attention, anxiety or discomfort in pupils not observable by people who do not work with children and the same political speech will evoke cheers from one listener and jeers from another. A

college professor will enunciate principles which are accepted with enthusiasm by one student but rejected as nonsense by another. The potential list is endless. And yet, strangely enough, each of us expects others to see the things we see and interpret them in the same way we do because we assume that we see the world as it "really is."

There are other important reasons besides the complexity of the universe which make it inevitable that any two persons will have learned to see the world somewhat differently. As we have already stated, most of what each of us "knows" has been learned from others instead of from direct observation, and our different teachers have different views of reality. The child whose parents are Moslems will have received different information about the world from the child whose parents are Mormons. Children whose parents are Republicans are given somewhat different facts from children whose parents are Democrats.

Not only do children learn different "facts" about the world, but having learned one thing may influence a person's capacity to learn something else. For example, learning to add makes it possible for the pupil to learn to multiply. Learning to see the world from a Baptist's point of view makes it harder to learn to know the Hindu's reality.

Another reason that each of us learns to know the world differently is the fact that much of what we learn can't be communicated verbally and, therefore, cannot be tested against

some other person's perceptions or beliefs. For example, an individual may, at times, experience apprehension or euphoria and not be able to identify the antecedent circumstances, the event that led to the feelings. A person may have learned concepts and principles which enable him to cope intuitively with various kinds of events in very skillful ways, e.g., social skills which make him effective in interpersonal relationships, but be unable to tell other people what he does.

Lastly, we learn different aspects of reality. Many of the propositions each of us learns are not testable at all, except by asking an "authority." We usually take on faith such propositions that "the world is round," "toadstools are poisonous," "the Red Chinese are evil," "witches can make the cow go dry," "that government is best that governs least," "boys are inevitably jealous of their fathers," etc. As children, we have learned that our parents and teachers know many things we do not know. Of necessity, therefore, we learn to accept what they tell us and ordinarily we do not learn any way of systematically verifying what they have said...Indeed, we often have no way of getting needed evidence.

We Need to Be Right

A motivational phenomenon that is of particular concern to the counselor has to do with "unlearning," because counselors must frequently deal with persons who are in some sense "cognitively wrong" as well as with those with cognitive

deficits. But anyone who tries to change another individual's already formed conception of the world runs the risk of being regarded by the person who needs help as lacking in understanding, incompetent, or possessed of evil intention.

It is apparently true that two people who find that they have a similar view of the world, especially a similar view about what is good and proper, are more likely to approve of one another and to become friends than are people who see the world differently (Newcomb, 1961). We learn to trust and regard as credible those people who see things as we do. Perhaps it is because our ways of interpreting our experiences are usually learned from persons and situations which have powerful emotional association for us, that we tend to hold fast to them. Or, perhaps the suggestion that some of our beliefs are incorrect makes us feel that the entire structure of our belief system may be wrong --that the world we thought we knew may suddenly become strange and unknown, an undependable, unpredictable, and therefore, frightening place.

This tendency towards conservatism, like the need for activity and change discussed earlier, may be related to the adaptive significance of our need to be right, for if curiosity about the environment, search for external stimulation, manipulation and experimentation are pleasurable and have as their biological ends the acquisition of informa-

tion and skills that will enable the organism to master the environment and to make accurate predictions about the consequences of certain acts and events as compared with others, then obviously both human beings and animals have a great stake in the accuracy of their generalizations and heuristics and feel terribly uneasy when their confidence in these rules and expectations is shaken. Asch (1952) and Crutchfield (1955) have demonstrated convincingly the fact that we may become exceedingly uncomfortable if we become aware that someone else sees things differently from the way we do. And, if there is consensus against us, we may experience a great deal of stress indeed. Discovering that his perception deviates from that of others, can cause a person so to distrust his judgment to the point where he will distort his own perception in order to make it comply with the "reality" of those about him. People cling to what is familiar and known and draw comfort from it. Maxwell in his Ring of Bright Water (1961) postulates the need of all animals for ritual, routine, and contact with old landmarks or objects. "As soon as routine is broken a new element enters, in however minute and unrecognizable a trace--the fear of the unknown which is basic to the behavior of all animals, including man." (page 107)

To recapitulate, human beings are naturally active and purposive. Part of our activity is exploratory and cognitive in nature--we need to know, to be able to predict

events, and, in some sense, to control our environment in order to survive. In addition, our psychological well-being depends, in part, on our capacity to find satisfying activities which focus our attention on the external world and away from ourselves. We become "self-aware" only when something is wrong. Each of us construes the universe differently, because it is complex and because we can't attend to all of it, because we learn from other people most of what we know about the world and about ourselves, and because our teachers do not agree about the nature of reality, and for other reasons listed above. But we need to feel that our view of the way things are is indeed correct, and we are not likely to like or trust people whose views of reality are very different from our own. It is the nature of human behavior not only to resist learning something contradictory to what we already believe, but to be suspicious and doubtful of the very persons who may sometimes be best able to help us. This fact creates particular kinds of problems for the counselor, and for anyone else who would try to change a person's beliefs and perceptual habits.

The Control of Human Behavior

As defined here, it is the task of teachers and counselors to change--that is, to control--the behavior of their students in certain ways that, it is hoped, will be lasting.

Some rather general ethical principles were made explicit at the outset of this paper: In short, what is taught ought to increase the number of alternative courses of action available to the student and to teach him to be more rather than less rational in his decision-making. I have implied that the ethical problems which arise when one person attempts to control another's behavior have to do with the kinds of changes the one tries to impose on the other, and not with the attempt to change per se. It is my present purpose to review certain propositions having to do with the task of bringing about change.

As Bruner (1962) has pointed out, human behavior is always under the control of systematic processes which either impinge upon the individual from outside or are initiated from within him; it is never random. External sources of control operate in two ways: one mode Bruner calls cognitive and the other punishment or reward. The cognitive mode is illustrated by the efforts of parents, teachers, politicians, advertisers, etc., to control other persons' behavior by shaping their conception of the world and of themselves. Punishments and rewards are usually used to control people's actions directly rather than through their beliefs.

Bruner makes the important point that these modes of control are linked -- that if we control people's behavior through rewards and punishments we may, at the same time,

influence their beliefs. He says that "people act themselves into a way of believing about as often as they believe themselves into a way of acting." He suggests that because we need to see our own actions as consistent with reality, we may, in fact, modify our views of reality to be consistent with our past behavior. Festinger (1958) provides experimental evidence that this proposition is probably sound. Sarbin expresses a similar view when he asserts that we can change people's behavior in lasting ways by getting them to enact a role.

Cognitive Controls

Theoretically, one person or agency can control another by controlling the information to which he is exposed. Parents, churches, and sometimes governments try to control the books a child reads and the people with whom he associates, usually so that the child will not learn concepts or views of which the controlling person or agency disapproves. Teachers require specific readings, usually to increase the number of concepts and principles available to the pupil. Counselors try to focus a subject's attention on some events while ignoring others, again to the end of increasing the number of alternative concepts and principles in the client's repertory. In each of these examples there is an attempt to modify in some way the individual's conception of reality.

Shirer (1959) presents a compelling example of the power of controlled information over behavior. He recalls

that Hitler used the fraudulent legend of the "stab in the back" to undermine the Weimar Republic and suggests by implication, at least, that Hitler was able to gain power because of the peculiar system of beliefs of the German people--because people had been taught by kings and drill sergeants and philosophers too, that their role in life was to be one of obedience, work, sacrifice, duty, and the suppression of human feeling. Shirer says that he himself was to experience how easily one is taken in by a lying and censored press and radio. "It was surprising and sometimes consternating to find that notwithstanding the opportunities I had to learn the facts, and despite one's inherent distrust of what one learned from Nazi sources, a steady diet over the years of falsifications and distortions made a certain impression on one's mind and often misled it." People who lacked Shirer's additional sources of information were completely taken in. "Often...I would meet with assertions from seemingly educated and intelligent persons...(obviously) parroting some piece of nonsense they had heard on the radio or read in the newspapers. Sometimes one was tempted to say as much, but on such occasions one was met with such a stare of incredulity, such a shock of silence, as if one had blasphemed the Almighty, that one realized how useless it was even to try to make contact with a mind that had been warped and for whom the facts of life had become what Hitler and Goebbels, with their cynical disregard of truth, said they were."

One of the most common forms of cognitive control is language. Bruner (1962) says that language predisposes the mind to certain modes of thought and certain ways of sharing subjective reality. The kinds of words to which we learn to react can influence our observations, thoughts, actions, and feelings. Certain words learned in certain ways can sometimes disrupt rational behavior altogether. For example, some people have learned to react in such an emotional way to such terms as "permissiveness," and "progressive education," that they forget these are ambiguous terms, each with a number of very different meanings. Some will become nearly hysterical at the sight or sound of a few of the shorter Anglo-Saxon terms because they apparently fail to discriminate between the sound or the sign on the placard and the object or event which the word signifies. A woman came into my office one day and reported in a very agitated manner that a boy and girl were lying outside on the campus lawn in broad daylight kissing one another, and she demanded that I "do something" immediately about their "filthy" behavior. She refused to consider the possibility that it might be "loving" behavior.

Another means of controlling behavior cognitively is the myth. The "stab in the back" myth has already been cited. Conger (1967) provides another example in his report of a conversation with a Siberian automobile mechanic about bears.

Yakuts will not kill a bear unless absolutely necessary. If they do, they believe something bad will happen. The automobile mechanic knew a man who shot a bear as it slept harmlessly on a floating piece of ice; shortly thereafter the man's son drowned nearby.

An extraordinary example of the controlling power of the myth was provided the present writer by two persons who had been born in China and lived there until late adolescence. Both had graduated from American colleges. One was an engineer, the other a teacher. They told of an exotic occupation in the province from which they came, of men who earn their living by walking the dead to the graveyard. Members of this occupation are hired by poor folk who cannot afford a conveyance in which their dead can ride. The work is done at night when people will be at home and in bed and thus not likely to encounter and be alarmed at the sight of the walking dead. Granted the possibility that the writer's leg was being pulled--the story had not been verified through ethnological sources--the circumstances and the manner of the telling were such that the writer believes his informants were describing a phenomenon in which they truly believed.

Again, it must be kept in mind that the same events have different meanings to different people. Even more important is the tendency which each of us has in greater or lesser degree to label beliefs which are incompatible with our own as ignorant, superstitious, or psychotic.

Counselors probably cannot and should not become myth-makers. But we can do at least two rather obvious but neglected things about the way our subjects use language to the end of improving the clarity of their thinking and the efficiency of their problem solving processes. One is to teach them to discriminate between descriptive and interpretive language. A teacher who says, "Johnny is an obnoxious brat," may fail to realize that he has told us something about himself, about his feelings, but nothing about Johnny. His use of words at best is fuzzy, at worst misleading to himself and sometimes to others.

A second thing counselors can do to improve clarity of thinking is to teach people--teachers, parents, students, and themselves--to discriminate between means and ends. People frequently follow a rule or a pattern of behavior because "it is the thing to do" and without asking the purpose. This can be both inefficient and self-defeating. For example, a working counselor reported in a graduate seminar that he had recently apprehended a student who was wandering in the halls during class hours, had taken him into the principal's office "so I would have a witness" while he searched the student's pockets, and had found a marihuana cigarette. The boy was quickly expelled from school. The counselor obviously felt some degree of ambivalence, for while his manner manifested a degree of self-righteousness, some element of doubt obviously led him to inquire

about the appropriateness of his actions. When I asked the counselor what his goals had been, what kind of behavior he had hoped to bring about in the student, he could get no further than to say that he wanted the boy to "follow the true path to the good life." He seemed to expect everyone to know what he meant. He rejected the suggestion that one of his goals was to get the boy to stop smoking marihuana, perhaps because he was suddenly aware that none of his own reported behavior had been consistent with that end.

Clearly any attempt to effect cognitive changes in others requires some consideration of: (1) the degree of congruence or incongruence between the new and the old ways of thinking; (2) the degree of credibility of the sources of the new information; and (3) some consideration too of how pervasive and unambiguous can be the impact of the effort at control. The more congruent the new belief with the old, the easier will it be for a person to act upon the new. The more the source is seen as a credible authority, the readier we are to believe in what he tells us. And as the work on brainwashing shows, where indoctrination is massive and where there is no access to conflicting information, control is the more likely to be effective.

Punishment and Reward

Theoretically again, one person can control another person by controlling the punishments and rewards to which

he is exposed. Parents, churches, and sometimes governments may show signs of approval or disapproval for particular kinds of behavior. We have police and a court system for that purpose, to say nothing of the military and of the informal occasions when politicians praise or scold one another or their constituents. Teachers use gold stars, threats, grades, and other means of reward and punishment.

Perhaps the major way in which teachers and counselors reward and punish children is through the kind of interpersonal relationship we establish. Each person has affiliative needs in greater or lesser degree. When we smile, praise, act friendly, we reward; when we frown, express disapproval, threaten, ignore, we punish. Both reward and punishment give information and modify cognition if only to the extent that the subject knows more about the attitudes of the other than he did before.

While people can learn certain facts or skills under threat of punishment, punishment tends to create anxiety, a state which inhibits rational thought and reasoning. Punishment can be effective as a means of stopping someone from doing something at that minute, but even for this purpose it has limitations and drawbacks. Instead of changing ideas and thus lastingly changing behavior in the desired way, it tends to make the person defend his old point of view. In addition, it may have undesired, unexpected, and

lasting side-effects, since over the long run it may make the punished person angry, frightened, submissively compliant, withdrawing, rebellious, defiant.

Reward is the more effective way to induce or persuade people to do what you want them to do. It must be kept in mind however, that because people see the world differently, what may be rewarding to one can be punishment to another. A teacher in the Uintah basin told me that he once held up the drawing of an Indian boy for the class to see because he thought it was such a good bit of work. But when he handed it back, the boy tore it into bits and would never draw in that teacher's class again. Being singled out above the others was, to him, highly inappropriate and was painfully embarrassing. Certainly, reward can be effective, but it is necessary to reward in context of the youngster's values and not merely something that the teacher, counselor, or parent assumes would be rewarding.

Unlike punishment, then, reward induces people to behave in new ways without running the risk of putting them on the defensive and getting them to build up negative attitudes toward the change agent. But it has still another advantage. Getting people to perform the new act gives them practice in doing it, which, if guided, will result in their doing it better and better. The things we do well--from resolving conflicts between ourselves and our spouses

to sailing a boat or solving algebra problems--we tend to find satisfying. The doing becomes an end in itself, perpetuating the tendency to perform that act. (c.f. Allport on functional autonomy.)

One further idea about reward as a control device relates to psychological well-being. Common observation tells us that a person's feelings of self-approval or disapproval are related to his ability to control his environment and the people in it--in short, his ability to do things that are commonly viewed with favor by his associates. This notion suggests that one way to increase a person's self-esteem is to teach him skills which he had not previously possessed. A reward approach that leads to new competency, has as its side-effects, not the resentment, self-justification or self-doubt that follow the use of punishment. Instead it has increased self-esteem, self-confidence, and resourcefulness as side-effects.

From the foregoing, it would seem to follow that the common belief that counselors should be warm, understanding, and non-judgmental, rewarding rather than punishing, is basically sound. It does not, however, follow that the counselor should reward everything the counselee says or does, for obviously that would be self-defeating behavior on the part of the counselor. The question involves the problem of discrimination--a topic that will be reserved for a future paper.

References

Allport, G.W. Personality and social encounter. Boston: Beacon Press, 1960.

Arbuckle, D.S. Counseling: philosophy, theory, and practice. Boston: Allyn and Bacon, 1965.

Asch, S.E. Social Psychology. New York: Prentice Hall, 1952.

Bartlett, F. (Sir). Thinking. New York: Basic Books, 1958.

Berdie, R.F. "A program of counseling interviewing research". Educational Psychological Measurement. 1958, 18, 255-274.

Bruner, J.S. On knowing. Cambridge: Harvard University Press, 1962.

Conger, D. Siberia. National Geographic, March 1967, 131, No. 3, 297-344.

Crutchfield, R.S. Conformity and character. American Psychologist, 1955, 4, 191-198.

Duncker, K. "On problem solving." Psychological Monograph, 1945, 58, No. 270.

Eysenck, H.J. "The effects of psychotherapy." In H.J. Eysenck (Ed.), Handbook of abnormal psychology. New York: Basic Books, 1961, 11. pp. 697-725.

Festinger, L. "The motivating effect of cognitive dissonance. In G. Lindzey (Ed.), Assessment of human motives. New York: Grove Press, 1958, pp. 65-86.

Ford, D.H., & Urban, H.B. Systems of psychotherapy. New York: John Wiley and Sons, 1963.

Gagné, R.M. The conditions of learning. New York: Holt, Rinehart, & Winston, 1965.

Harlow, H.F. "Mice, monkeys, men, and motives." Psychological Review, 60, 23-32, 1953.

Jahoda, Marie. Current concepts of positive mental health. New York: Basic Books, 1958

Johnson, D.M. The psychology of thought and judgment. New York: Harper and Brothers, 1955.

London, P. The modes and morals of psychotherapy. New York: Holt, Rinehart and Winston, 1964.

Maxwell, G. Ring of bright water. E.P. Dutton and Co., 1961.

Miller, G.A., Galanter, E., and Pribram, K.H. Plans and the structure of behavior. New York: Henry Holt and Co., 1960.

Murphy, G. Personality. New York: Harper and Brothers, 1947.

Murphy, G. "Social motivation." In G. Lindzey (Ed.), Handbook of social psychology. Cambridge: Addison-Wesley Publishing Co., 1954. pp. 601-633.

Newcomb, T.M. The acquaintance process. New York: Holt, Rinehart, and Winston, 1961.

Patterson, C.H. Counseling and guidance in schools: a first course. New York: Harper and Brothers, 1962.

Rogers, C.R. "Psychotherapy today or where do we go from here?" American Journal of Psychotherapy, 1963, 17 (1), 5-16.

Shirer, W.L. The rise and fall of the Third Reich. Simon and Schuster, 1960.

Solomon, P., et. al. Sensory deprivation. Cambridge: Harvard University Press, 1961.

Super, D.A. Appraising vocational fitness. New York: Harper and Brothers, 1949.

Tyler, Leona E. The work of the counselor. New York: Appleton-Century-Crofts, 1961.

White, R. W. "Motivation reconsidered: the concept of competence." Psychological Review, September 1959, 66, No. 5, 297-333.

Whyte, L.L. The unconscious before Freud. Garden City, New York: Doubleday and Company, 1962.

Williamson, E.G., & Foley, J.D. Counseling and discipline. New York: McGraw-Hill, 1949.

Woodring, P. A fourth of a nation. New York: McGraw-Hill, 1957.

Woodworth, R.S. Dynamics of behavior. New York: Holt, 1958.

Young, J.Z. Doubt and certainty in science. New York: Oxford University Press, 1960.